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Field Service Procedure

Conversion Kit, 3 Vapor Mount on Fabius GS®
Anesthesia



Revision -
5/11/04
SP00308

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Service Procedure

Conversion Kit, 3 Vapor Mount on Fabius GS

CONVERSION KIT, 3 VAPOR MOUNT ON FABIUS GS

1 GENERAL INFORMATION

This document contains warning and caution statements.

- A **WARNING** statement gives important information which, if ignored, could lead directly to personal injury.
- A **CAUTION** statement gives important information which, if ignored, could lead directly to equipment damage and indirectly to personal injury.

The following warnings apply to general operation and maintenance of the anesthesia machine. Warnings and cautions about installing and operating specific parts appear with those topics.



WARNING:

This device must be serviced only by an authorized representative of Draeger Medical, Inc. Refer any servicing to qualified service personnel.



WARNING:

Any person involved with the setup, operation, or maintenance of the Fabius GS anesthesia machine must be thoroughly familiar with the instruction manual for this product.



NOTE:

The following procedure shall only be performed on Fabius GS units. This modification replaces the two (2) vapor mounting system with a three (3) vapor mounting system.



NOTE:

The illustrations contained in this document are for reference only and therefore may or may not reflect the exact version of the 3 Vapor Mount system being installed.

2 PURPOSE

The purpose of the 3 Vapor Mount Kit is to provide the means necessary to support the simultaneous mounting of 3 different agent vaporizers. The 3 Vapor Mount greatly reduces the need to exchange agent vaporizers to accommodate varying patients and procedures.

Two kits will be offered to support this installation. Kit one (P/N 4118682) will be used to install the 3 Vapor Block. Kit two (currently not available) will be used to install the 3 Vapor Mount with the already assembled Desflurane Adapter mounted on the 3 Vapor Mount.

Different kit contents will be provided dependant upon the customers needs. These kit contents are identified in [Table 1](#).

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3 KIT CONTENTS

Inspect the 3 Vapor Mount Conversion Kit to verify that it contains the following:

Table 1 3 Vapor Mount Conversion Kit Contents Matrix

PART NUMBER	DESCRIPTION	KIT ONE (P/N 4118682)	KIT TWO (NOT CURRENTLY AVAILABLE)
4118546	MOUNT, 3 VAPOR	X	
NOT CURRENTLY AVAILABLE	MOUNT, 3 VAPOR WITH DESFLURANE		X
1320585	SCREW, CAP SKT HD, M4 X 10L	X	X
4118809	TAPE, COPPER FOIL, CORNER BENT	X	X
4118808	TAPE, COPPER FOIL, L PROFILE	X	X
4118684	SUPPLEMENT TO THE OPERATOR'S MANUAL	X	X
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4 CONVERSION KIT INSTALLATION

**WARNING:**

The Fabius GS 3 Vapor Mount is only to be use on Fabius GS units that are configured with left side mounted breathing system.

1. Confirm that auto exclusion vaporizers are available for the particular machine being upgraded. If auto exclusion vaporizers are not available, DO NOT continue with this conversion.
2. Set the machine power switch to ON.
3. Deplete all reserve cylinder and pipeline pressures.

**NOTE:**

Vaporizers do not need to be drained prior to the following step.

**WARNING:**

DO NOT tilt any vaporizer more than 45 degrees at any time.

4. Remove all vaporizers from the machine.
5. Disconnect all pipeline hoses from the gas inlet assembly at the rear of the machine.
6. Set the power switch to OFF.
7. Remove the back panel from the gas box
8. Disconnect the wire harness from the O2 supply pressure alarm switch and the ground wire connected to the gas inlet assembly.
9. Make a note of the pneumatic connections to the gas inlet assembly, and their destinations. Identify and label tubing (see [Fig. 1](#)) to ensure proper reassembly
10. Disconnect the following tubing from the gas inlet assembly. See [Fig. 1](#).
 - P1 (N2O pipeline pressure gauge)
 - P2 (Air pipeline pressure gauge)
 - P3 (O2 pipeline pressure gauge)
 - P4 (N2O cyl reg output check valve)
 - P5 (N2O flow control valve)
 - P6 (Air flow control valve)
 - P7 (O2 flow control valve)
 - P8 (O2 T-fitting)

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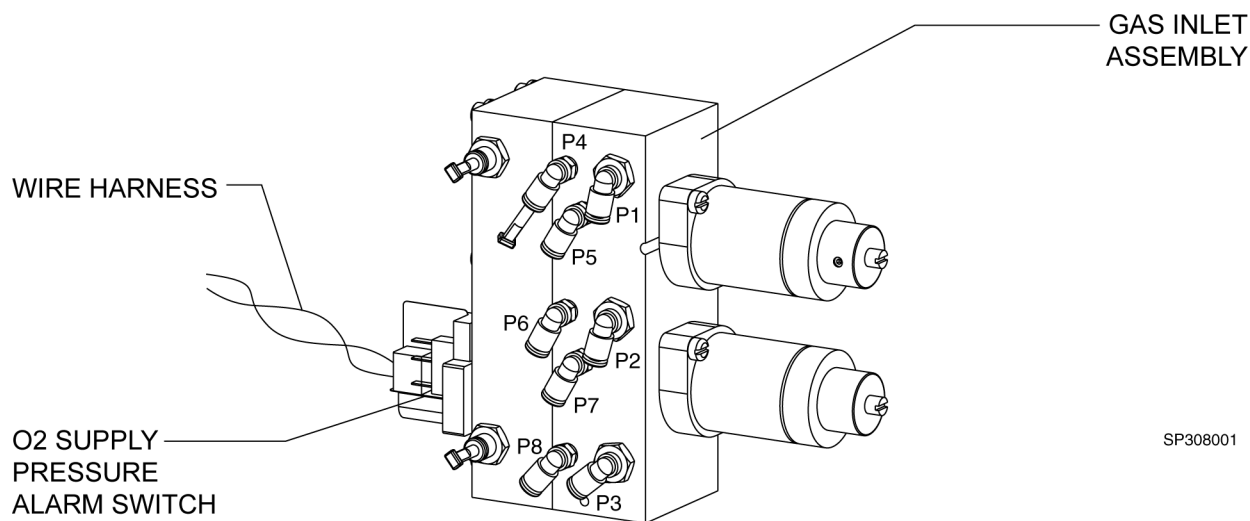


Fig. 1 Gas Inlet Assembly

11. Disconnect both pneumatic lines connected to the rear of the vapor block. See [Fig. 2](#).
12. Cover the open pneumatic lines and position them away from the area to prevent entry of debris.
13. Note the orientation of the fittings at the rear of the vapor block for later re-assembly, then remove the fittings from the vapor block.
14. Clean all residual Loctite from compression fitting after removal. See [Fig. 2](#).

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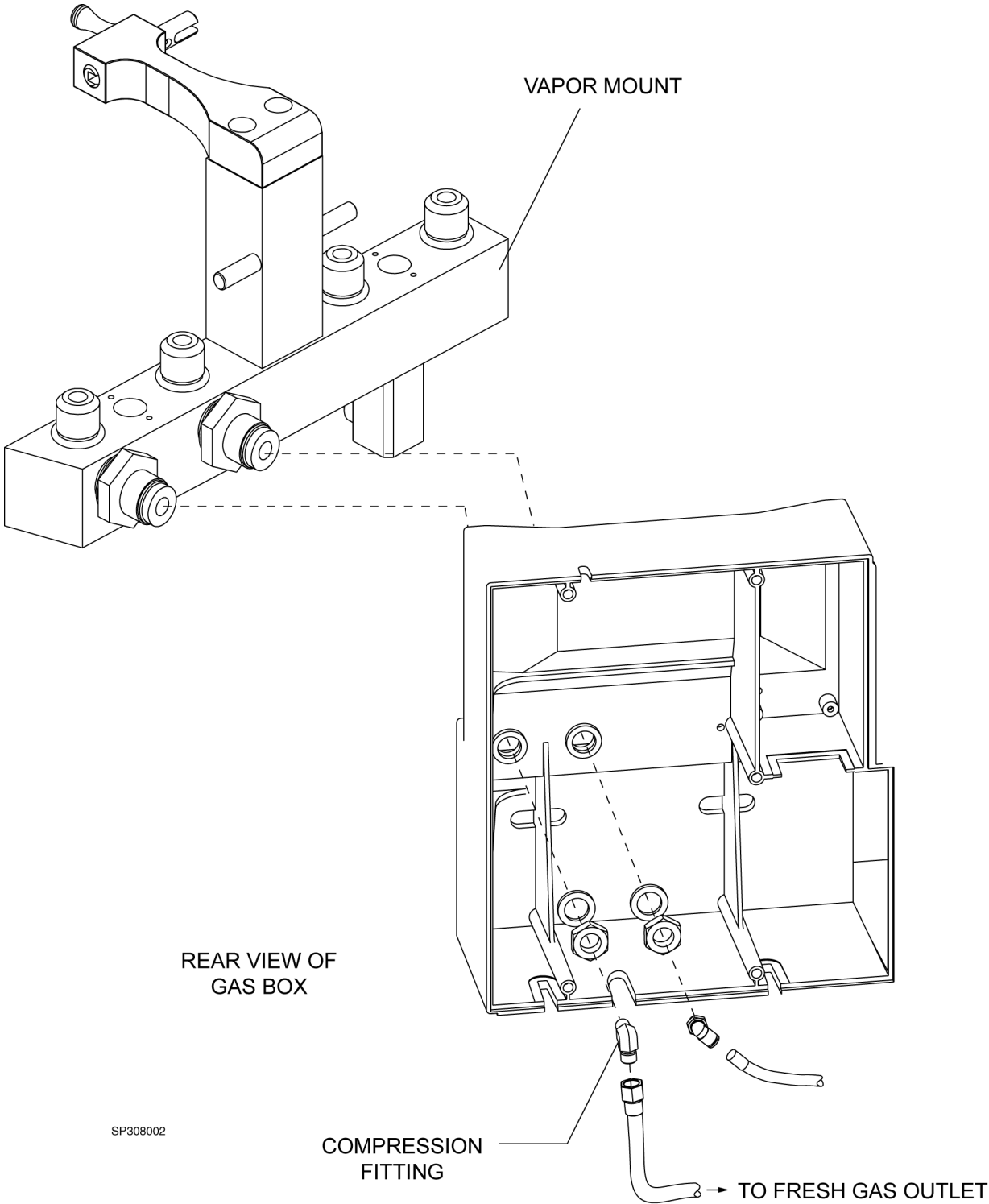


Fig. 2 Disassembly

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15. Remove the hardware securing the original vapor mount to the gas box, and remove the vapor mount.
16. Remove all items from the machine's table top.
17. Using a Jab Saw (P/N 4118683), carefully cut off the corner end of the Gas Box as shown in [Fig. 3](#).

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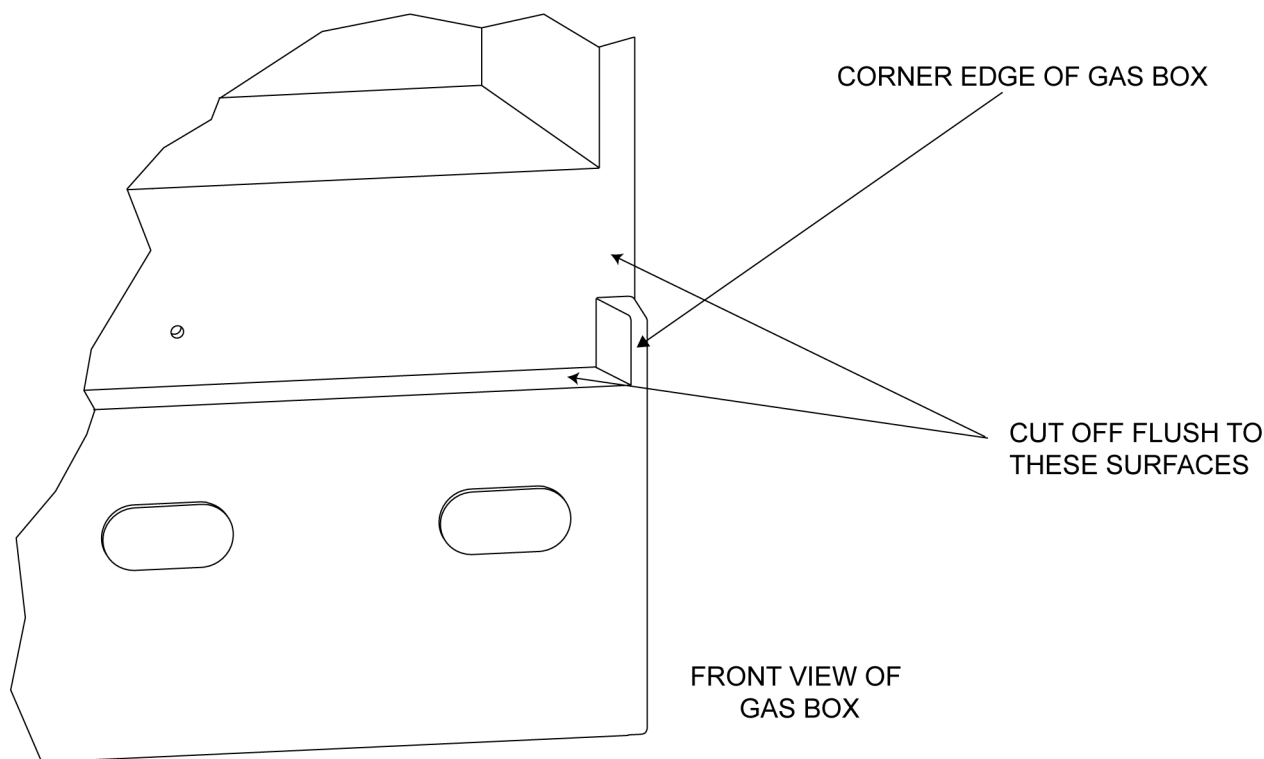
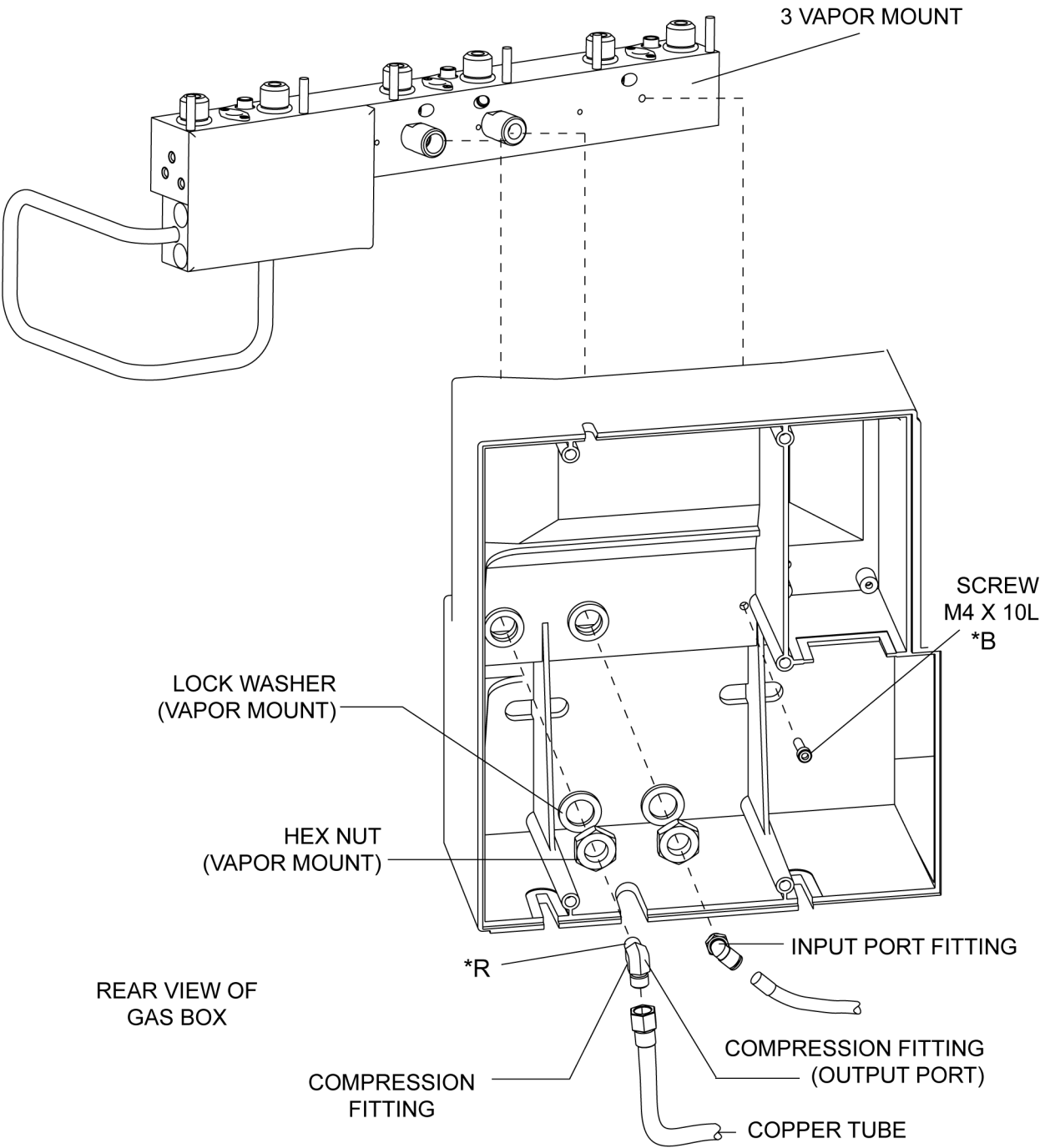


Fig. 3 Gas Box Modification

18. Remove all debris from the interior and exterior of the unit, then install 3 Vapor Mount onto Gas Box shelf to ensure proper fit. Make any necessary adjustments.
19. Install the 3 Vapor Mount, and secure it with the new hex nuts and washers.
20. Apply an ample amount of Loctite #425 (Blue) to the M4 x 10L screw and install it through the gas box into the 3 Vapor Mount as shown in [Fig. 4](#).
21. Tighten all hardware when the parts are aligned and seated correctly.

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*B = LOCTITE #425 (BLUE)
*R = LOCTITE #271 (RED)



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Fig. 4 Vapor Mount Assembly Installation

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*B = LOCTITE #425 (BLUE)

*R = LOCTITE #271 (RED)

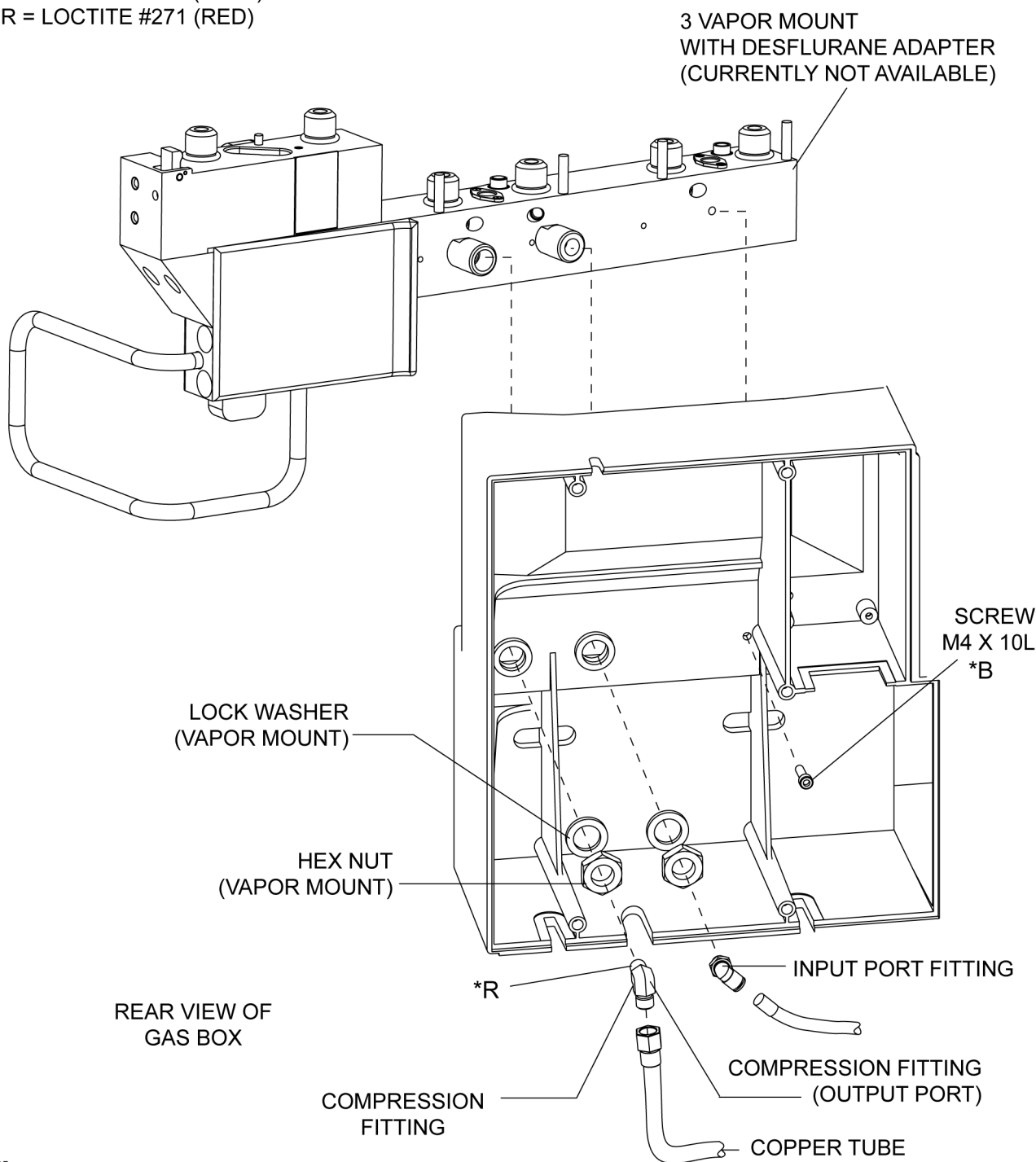


Fig. 5 Vapor Mount With Desflurane Installation (NOT CURRENTLY AVAILABLE)

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22. Apply an ample amount of Loctite #271 (RED) to the compression fitting threads, and install the fitting in the output vapor port as shown in [Fig. 4](#). Final position of the fitting shall face down.



CAUTION:

Verify the O-Ring is present on the remaining fitting and is in good condition.

Thread sealant is not needed on the fitting referred to in the following step.

23. Install the remaining fitting in the input vapor port and tighten.



CAUTION:

Two pieces of copper foil are contained in the 3 Vapor Mount Kit. The 'L Profile' piece requires no modifications. The 'Corner Bent' copper foil requires the piece to be folded properly to ensure it's fully seated. Refer to [Fig. 6](#) for detailed instruction.

24. Bend and install the 'Corner Bent' copper foil onto the rear of the gas box, as shown in [Fig. 6](#). Overlay the 'L Profile' copper foil on the outside edge on the installed 'Corner Bent' copper foil piece.

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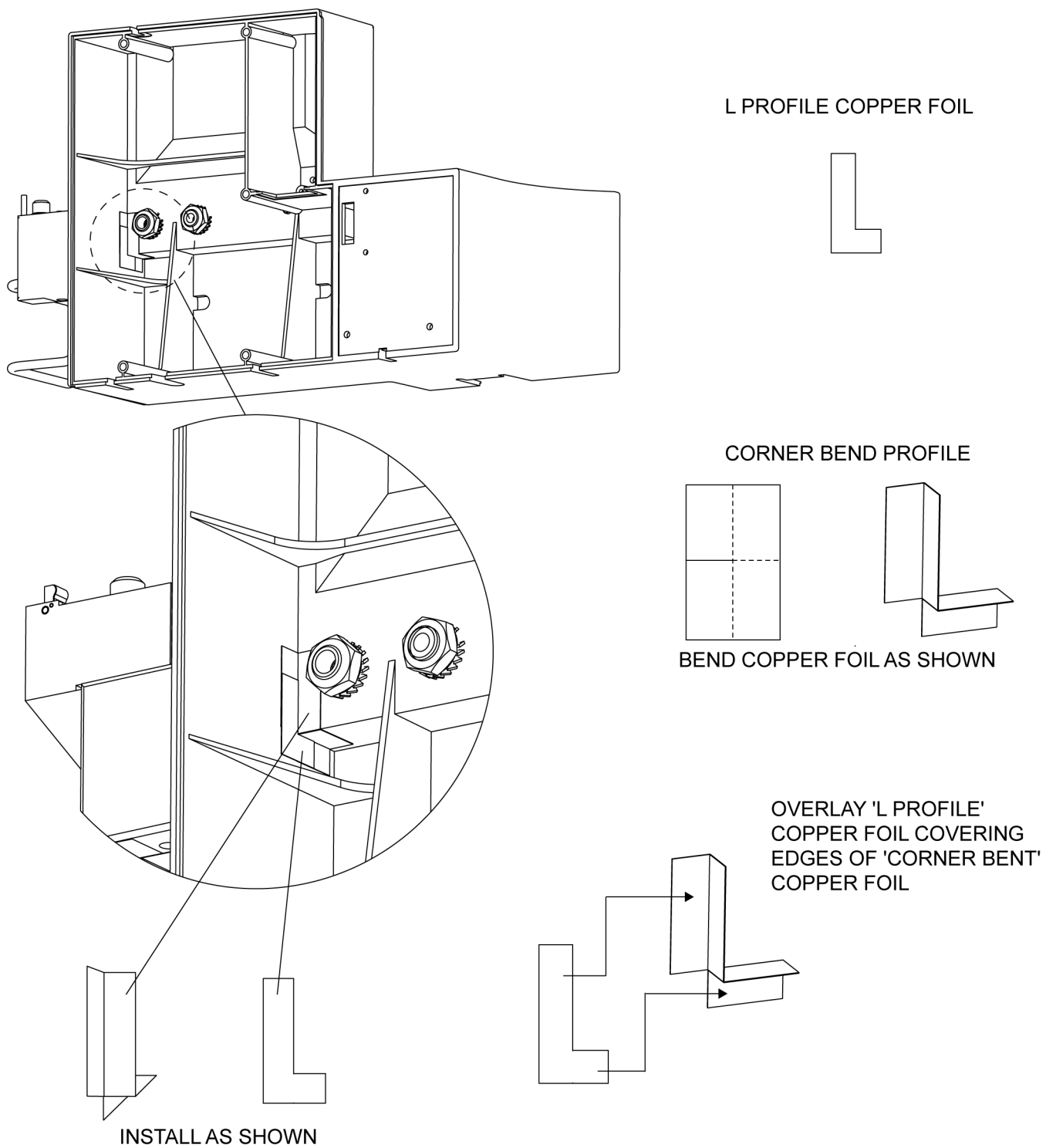


Fig. 6 Copper Foil Bending and Installation Details

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25. Reconnect the pneumatic line to the fitting installed in the previous step. Do not connect the copper tube to the output port fitting yet.
26. Reconnect the pneumatic hoses, ground wire, and O2 supply switch wire harness to the gas inlet assembly.
27. Reconnect the pipeline hoses to the gas inlet assembly and pressurize the system.
28. Set the machine power switch to ON.
29. Set all gas flows to 10 L/min. Rapidly occlude then release the opening of the output vapor port to expel any residual debris in the vapor block.
30. Set all gas flows to zero. Reconnect the copper tube to the compression fitting on the vapor port. Do not over-tighten.
31. Reinstall the back panel and gas inlet assembly on the rear of the machine.
32. Verify the six vapor mount O-rings are present on the 3 Vapor Mount.



CAUTION:

Only vaporizers with the auto-exclusion feature will fit onto the 3 vapor mount.

33. Install the auto-exclusion vaporizers on the vapor mount and lock in position.
34. Perform a complete PMS procedure on the machine as given in Section 7 of the Fabius GS Service Manual, including a Vapor Concentration test and a Vapor Interlock System test on all vapor positions.
35. Replace all materials, equipment, etc. back on the machine table top as originally found.
36. Locate the Fabius GS Operator's Manual binder assembly and insert supplement #4118684 (Supplement to the Fabius GS Operator's Manual for the Dräger Three Vaporizer Mount) into the Operator's Manual at its appropriate location.

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Subject to change without notice.
Will not be replaced in the event of modifications.

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